

devstack ocata on ubuntu 16.04 setup

Create bootable USB drive from ubuntu iso

```
wget http://ubuntu.volia.net/ubuntu-releases/xenial/ubuntu-16.04.3-server-amd64.iso
dd if=ubuntu-16.04.3-server-amd64.iso of=/dev/sdb
```

Install server minimum (+ ssh server)

Remove virtualization tools if accidentally choosen

```
sudo apt-get remove --purge qemu-kvm libvirt-bin ubuntu-vm-builder bridge-utils
```

Update all components

```
sudo su -
apt update
apt upgrade
```

Disable IPv6

```
cat <<EOF >> /etc/sysctl.conf
net.ipv6.conf.all.disable_ipv6 = 1
net.ipv6.conf.default.disable_ipv6 = 1
net.ipv6.conf.lo.disable_ipv6 = 1
net.ipv4.conf.default.rp_filter=0
net.ipv4.conf.all.rp_filter=0
net.ipv4.ip_forward=1
net.ipv4.conf.all.proxy_arp = 1
net.ipv4.conf.all.proxy_arp_pvlan = 1
EOF
sysctl -p
```

Switch to static IP

```
vim /etc/network/interfaces
# The primary network interface
auto enp3s0
iface enp3s0 inet static
    address 10.9.8.254
    netmask 255.255.255.0
    gateway 10.9.8.241
    dns-search local
    dns-nameservers 10.9.8.241
```

Remove sudo password request

```
visudo
```

```
# User privilege specification

root    ALL=(ALL:ALL) NOPASSWD:ALL

# Members of the admin group may gain root privileges
%admin  ALL=(ALL) NOPASSWD:ALL

# Allow members of group sudo to execute any command
%sudo   ALL=(ALL:ALL) NOPASSWD:ALL
```

Add ssh key to user(s)

```
echo 'ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQACv1hNcFg6w3pOLPDdoc+WdBegk1a9VspjV9MaHTEJm6W1InpyBsSEzg
/WUeQT9qfiin8dmjX8tRY9clGsp8xzrpiT2I/3mN8dgLvCfpWlNYNUkIPL5L1erbUmm9N0bnTm80UpykBY8QPU2xJH9SB4fUDCOQ9kQOuoS
/0CKNlalnXQCrKpt50BHC4QdSsVwemN5Gqj5O2LqzAQGZBfykuY6WJUlab/0YmgOcw6QNP/KuI+biceZr3B49rroCN1
/YWVCDVd6j7Wu898a5vh3qsQ0q/acBKrI7mdix+Lbc+TJfKfWVl89wAFOCmswMJku+nhj+kt5STDFklvRAFnuPg/ oliutyi@server' > ~/.ssh
/authorized_keys
chmod 600 ~/.ssh/authorized_keys
```

Reboot

```
reboot
```

Devstack setup

Clone devstack

```
cd /opt
git clone https://git.openstack.org/openstack-dev/devstack
cd devstack/
git checkout stable/ocata
```

Create stack user

```
/opt/devstack/tools/create-stack-user.sh
chown stack:stack /opt/devstack/ -R
```

Create config

```
vi /opt/devstack/local.conf
```

Minimal config

```
[[local|localrc]]
FLOATING_RANGE=10.9.8.224/28
FIXED_RANGE=10.11.12.0/24
FIXED_NETWORK_SIZE=256
FLAT_INTERFACE=enp3s0
ADMIN_PASSWORD=password_1
DATABASE_PASSWORD=password_2
RABBIT_PASSWORD=password_3
SERVICE_PASSWORD=password_4
```

More settings

```
[[local|localrc]]
IP_VERSION=4
HOST_IP=10.9.8.254
FLAT_INTERFACE=enp3s0
FLOATING_RANGE=10.9.8.224/28
IPV4_ADDRS_SAFE_TO_USE=10.9.9.0/24
FIXED_RANGE=10.11.12.0/24
FIXED_NETWORK_SIZE=256
ADMIN_PASSWORD=password_1
DATABASE_PASSWORD=password_2
RABBIT_PASSWORD=password_3
SERVICE_PASSWORD=password_4
VOLUME_GROUP_NAME="stack-volumes"
VOLUME_NAME_PREFIX="volume-"
VOLUME_BACKING_FILE_SIZE=100G
```

start installation

```
su - stack
cd /opt/devstack/
./stack.sh
```

Finish

```

=====
DevStack Component Timing
=====
Total runtime 749

run_process 55
test_with_retry 3
apt-get-update 2
pip_install 72
restart_apache_server 14
wait_for_service 13
apt-get 13
=====

This is your host IP address: 10.9.8.254
Horizon is now available at http://10.9.8.254/dashboard
Keystone is serving at http://10.9.8.254/identity/
The default users are: admin and demo
The password: AdminPass13
2017-10-04 23:56:18.294 | WARNING:
2017-10-04 23:56:18.294 | Using lib/neutron-legacy is deprecated, and it will be removed in the future
DevStack Version: ocata
Change: 8cb43d098ca88ce57ec216423c009cccd07f1299 Use "pip list" in check_libs_from_git 2017-10-02 11:09:56 -0400
OS Version: Ubuntu 16.04 xenial

2017-10-04 23:56:18.295 | stack.sh completed in 749 seconds.

```

Connect storage

```

apt install nfs-common
mkdir /storage
mount.nfs storage.local:/volume1/backup /storage

```

Import Images

http://10.9.8.254/dashboard/project/api_access/

```

export OS_AUTH_URL=http://10.9.8.254/identity/v3
export OS_PROJECT_ID=7da2ddb9df5404da160a42eb7594ff2
export OS_PROJECT_NAME="demo"
export OS_USER_DOMAIN_NAME="Default"
unset OS_TENANT_ID
unset OS_TENANT_NAME
export OS_USERNAME="admin"
export OS_PASSWORD=Password1
export OS_REGION_NAME="RegionOne"
export OS_INTERFACE=public
export OS_IDENTITY_API_VERSION=3

```

```

glance image-create --name DB --min-disk 5 --min-ram 1 --disk-format qcow2 --container-format bare --progress --
file /storage/openstack/db-2017-10-01.qcow2;
glance image-create --name HOME --min-disk 5 --min-ram 1 --disk-format qcow2 --container-format bare --progress
--file /storage/openstack/home-2017-10-01.qcow2;
glance image-create --name NOC --min-disk 5 --min-ram 1 --disk-format qcow2 --container-format bare --progress
--file /storage/openstack/noc-2017-10-01.qcow2;
glance image-create --name JIRA --min-disk 5 --min-ram 1 --disk-format qcow2 --container-format bare --progress
--file /storage/openstack/jira-2017-10-01.qcow2;
glance image-create --name WIKI --min-disk 5 --min-ram 1 --disk-format qcow2 --container-format bare --progress
--file /storage/openstack/wiki-2017-10-01.qcow2;

```

Create Floating IP

```
openstack floating ip create --floating-ip-address 10.9.8.228 271e91f2-65a9-4cd0-b709-b5346a33f95c
openstack floating ip list
```

Open firewall on Openstack

```
nova secgroup-add-rule default tcp 22 22 0.0.0.0/0
nova secgroup-add-rule default tcp 80 80 0.0.0.0/0
nova secgroup-add-rule default tcp 443 443 0.0.0.0/0
nova secgroup-add-rule default tcp 8080 8080 0.0.0.0/0
nova secgroup-add-rule default tcp 8090 8090 0.0.0.0/0
nova secgroup-add-rule default tcp 10051 10051 0.0.0.0/0
nova secgroup-add-rule default tcp 10050 10050 0.0.0.0/0
```